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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,332	11/10/2003	Christopher R. Meischner	01-605	5089
719	7590	12/30/2004	EXAMINER	
CATERPILLAR INC. 100 N.E. ADAMS STREET PATENT DEPT. PEORIA, IL 616296490			LARKIN, DANIEL SEAN	
			ART UNIT	PAPER NUMBER
				2856

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/705,332	MEISCHNER ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Daniel S. Larkin	2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-20 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3-11,15 and 20 is/are rejected.
- 7) Claim(s) 2, 12-14, and 16-19 is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10 November 2003 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because of the following:

Reference box "60", as shown in Figures 1 and 2, should also be labeled -- fluorometer

Reference box "64", as shown in Figure 1, should also be labeled -- display --.

Reference box "55", as shown in Figure 1, should also be labeled -- recording device/means --

The abscissa, as shown in Figure 3, should be labeled -- Time --.

The ordinate, as shown in Figure 3, should be labeled -- Intensity/Density of Monitoring Fluid --.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

Reference numeral -- 50 -- does not appear within Figure 2, as suggested by the disclosure on page 5, paragraph [13], line 13.

3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The disclosure is objected to because of the following informalities:

Page 4, paragraph [11], line 1: The term -- embodiment, -- should be inserted after the term "alternative".

Page 5, paragraph [13], line 10: Reference numeral "34" should be corrected to read -- 36 --.

Page 6, paragraph [13], line 3: Reference numeral "32" should be corrected to read -- 34 --.

Page 6, paragraph [14], lines 2 and 3: The term "fluorometer" should be corrected to read -- fluorometer --.

Page 6, paragraph [15], lines 1 and 5: The term "fluorometer" should be corrected to read -- fluorometer --.

Page 7, paragraph [17], lines 2, 6, 9, and 11: The terms "wave" and "length" should be corrected to read -- wavelength --.

Page 7, paragraph [17], line 4: The terms "length" should be corrected to read -- wavelength --.

Page 7, paragraph [17], line 7: A -- hyphen -- should be inserted after the term "wave".

Page 7, paragraph [18], line 11: Reference numeral "14" should be corrected to read -- 12 --.

Page 8, paragraph [19], line 2: Reference numeral "34" should be corrected to read -- 36 --.

Page 8, paragraph [19], lines 3, 5, 6, 8, 11, and 13: The term "fluorescent" should be corrected to read -- fluorescent --.

Page 8, paragraph [19], lines 7 and 10: The term "fluorometer" should be corrected to read -- fluorometer --.

Page 8, paragraph [19], line 9: Both occurrences of the terms "wave" and "length" should be corrected to read -- wavelength --.

Page 8, paragraph [19], line 17: A -- comma -- should be inserted after the second occurrence of the term "rate".

Page 9, paragraph [21], line 2: Reference numeral "34" should be corrected to read -- 36 --.

Page 9, paragraph [21], lines 6, 8, 11, 13, 15, and 19: The term "florescent" should be corrected to read -- fluorescent --.

Page 9, paragraph [21], lines 10 and 15: The term "fluorometer" should be corrected to read -- fluorometer --.

Page 9, paragraph [21], lines 12 and 13: The terms "wave" and "length" should be corrected to read -- wavelength --. Appropriate correction is required.

### ***Claim Objections***

5. Claims 1-20 are objected to because of the following informalities:

Re claim 1, claim line 2: The "semicolon" should be corrected with a -- colon --.

Re claim 2, claim line 2: The abbreviation "(DP3)" should be deleted since this abbreviation does not represent the first fluid nor the commodity.

Re claim 2, claim line 3: The terms "wave" and "length" should be corrected to read -- wavelength --.

Re claim 3, claim line 1: A -- comma -- should be inserted prior to the term "wherein", which is consistent with the punctuation used in claim 2.

Re claim 3, claim line 2: The conjunction "and" should be replaced with the conjunction -- or --.

Re claim 4, claim line 1: A -- comma -- should be inserted prior to the term "wherein", which is consistent with the punctuation used in claim 2.

Re claim 4, claim line 2: The conjunction "and" should be replaced with the conjunction -- or --.

Re claim 5, claim line 1: A -- comma -- should be inserted prior to the term "wherein", which is consistent with the punctuation used in claim 2.

Re claim 5, claim line 2: The conjunction "and" should be replaced with the conjunction -- or --.

Re claim 6, claim line 5: The "semicolon" should be corrected with a -- colon --.

Re claim 6, claim line 13: The conjunction "and" should be replaced with the conjunction -- or --.

Re claim 9, claim line 1: A -- comma -- should be inserted prior to the term "wherein", which is consistent with the punctuation used in claims 7 and 8.

Re claim 10, claim line 1: A -- comma -- should be inserted prior to the term "wherein", which is consistent with the punctuation used in claims 7 and 8.

Re claim 11, claim line 1: A -- comma -- should be inserted prior to the term "wherein", which is consistent with the punctuation used in claims 7 and 8.

Re claim 12, claim line 1: A -- comma -- should be inserted prior to the term "wherein", which is consistent with the punctuation used in claims 7 and 8.

Re claim 13, claim line 1: A -- comma -- should be inserted prior to the term "wherein", which is consistent with the punctuation used in claims 7 and 8.

Re claim 14, claim line 1: A -- comma -- should be inserted prior to the term "wherein", which is consistent with the punctuation used in claims 7 and 8.

Re claim 15, claim line 3: The phrase "the commodity storage reservoir" lacks antecedent basis. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 6, 7, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by US 4,762,167 (Dobson).

With respect to the limitations of claim 6, the reference to Dobson discloses a water management system wherein an a first fluid/heat exchange liquid have a distinguishing parameter and being stored in a first fluid reservoir; an oil sample/second fluid having a distinguishing parameter different than the parameter of the first fluid and stored in a second fluid storage reservoir which is separated from the first fluid storage reservoir; a monitoring fluid/dye being stored in the first fluid reservoir, the monitoring fluid having a distinguishing parameter being different than the parameter of the first and second fluids, and a monitoring station. The reference discloses that a dye is placed within a heat exchange liquid than is circulated around a source of heat, such as an engine. The reference further discloses that trace water leaks within an oil sample can be detected through the presence of the dye located in the heat exchange liquid.

With respect to the limitation of claim 7, the reference discloses that the monitoring fluid/dye is added to the first fluid/heat exchange liquid.

With respect to the limitation of claim 11, the reference discloses that the monitoring fluid/dye is a fluorescent dye.

8. Claims 1 and 3-10 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,831,151 (Ondrus et al.).

With respect to the limitations of claim 1, the reference to Ondrus et al. discloses a system and a method for monitoring the proportional volume of constituents provided to a mixture comprising a commodity (A) having a preestablished parameter; a first fluid reservoir having a first fluid (B) therein, the first fluid (B) having a preestablished parameter being different than the parameter of the commodity (A); a monitoring/tagging fluid having a preestablished parameter being different than the parameters of the commodity (A) and the first fluid (B); an apparatus having at least one of a plurality of components (12, 14, 20, 22, 35) being operated in a preestablished cycle; and a monitoring station (40) having a recording device and a display/warning device having the capability (37, 39) to distinguish the parameter of the tagging fluid from the parameters of the commodity/hardener (A) and first fluid/resin (B), so as to determine the appropriate concentrations of the commodity and first fluid at a mixer sensor (33) based on the amount of tagging fluid measured at a plurality of sensors.

With respect to the limitation of claim 3, the reference discloses that the commodity is comprised of a hardener constituent, which is in a liquid state.

With respect to the limitation of claim 4, the reference discloses that the first fluid is comprised of a resin constituent, which is in a liquid state.

With respect to the limitation of claim 5, the reference discloses that the monitoring fluid is comprised of a ferromagnetic tagging material, which is in the solid state.

With respect to the limitations of claim 6, the reference to Ondrus et al. discloses a system and a method for monitoring the proportional volume of constituents provided to a mixture comprising a first fluid (B) having a preestablished parameter and stored in a first fluid storage reservoir; a second fluid (A) having a preestablished parameter being different than the parameter of the first fluid (B) and being stored in first fluid storage reservoir, which is separated from the first fluid storage reservoir; a monitoring/tagging fluid having a preestablished parameter being different than the parameters of the first fluid (B) and the second fluid (A); and a monitoring station (40).

With respect to the limitation of claim 7, the reference discloses that the prior art teaches that the monitoring/tagging fluid is added to the first fluid/resin constituent (B) prior to shipment to the user.

With respect to the limitation of claim 8, the reference discloses that the monitoring station has the capability (37, 39) to distinguish the parameter of the tagging fluid from the parameters of the commodity/hardener (A) and first fluid/resin (B). Moreover, the sensors (37, 39) would have the ability to distinguish the resin from the hardener constituent.

With respect to the limitations of claims 9 and 10, the reference discloses that monitoring station contains a recording device/register (450, 460) and a display device to issue a warning.

9. Claims 15 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,274,335 (Wang et al.).

With respect to the limitations of claim 15, the reference to Wang et al. discloses a method of qualitatively determining oil type and condition comprising the steps of: providing a commodity/oil storage reservoir (202), the commodity/oil (204) having a predetermined distinguishing parameter/reactivity; providing a first fluid storage reservoir having a first fluid/antifreeze therein, the first fluid/antifreeze/glycol having a predetermined distinguishing parameter/reactivity being different than the parameter/reactivity of the commodity/oil (204); providing an apparatus/engine (200) being connected to the first fluid storage reservoir and the commodity/oil; and providing a monitoring station in operational communication with the commodity/oil (204), the monitoring station distinguishing between one of the parameter of the first fluid and the parameter of the commodity/oil, col. 5, lines 9-38.

With respect to the limitations of claim 20, the reference discloses that the oil sensor system comprises means comparing measurement results with predetermined values, and means for sending signals to a display means or recording means in a manner determined as a function of the comparisons, col. 5, lines 49-59.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The prior art to US 5,120,661 (Baker et al.) discloses a method for detection and quantitative analysis for water treatment chemicals comprising adding a dye to a concentrated water treatment composition. The concentration of the dye and the treatment composition are proportionate to one another such that the concentration of the treatment composition can be determined by measuring the percentage of light absorbed by the dye in the water.

The prior art to US 4,004,453 (Thyrum) discloses a method of detecting oil in water comprising filtering a sample of water; pressing a dye-impregnated pad against the upstream face of the filter; and observing the upstream surface of the filter for variations in color intensity which are evidence of the concentration of oil in water.

The prior art to US 5,488,855 (Carter et al.) discloses a method of testing lubricating oil for mineral oil contaminants by mixing a predetermined quantity of lubricating oil with a predetermined quantity of a polar liquid or a mixture of polar liquids and determining whether the mixture is clear or turbid. A clear mixture indicates non-saturation by the contaminating mineral oil.

The prior art to US 6,227,038 (Blossfeld) discloses a radiotracer method for measuring leakage of engine coolant comprising the steps of dissolving a glycol-soluble salt of <sup>86</sup>Rb as a tracer in the coolant and detecting the beta or gamma ray radiation from the tracer containing coolant in a suspected leakage path or in the lubricating oil.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Larkin whose telephone number is 571-272-2198. The examiner can normally be reached on 8:00 AM - 5:00 PM Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Larkin  
AU 2856  
23 December 2004



DANIEL S. LARKIN  
PRIMARY EXAMINER